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FILE 'HOME' ENTERED AT 02:47:06 ON 20 JUL 2008

=> file caplus, medline, uspatfull, biosis
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.84       0.84

FILE 'CAPLUS' ENTERED AT 02:49:18 ON 20 JUL 2008
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FILE 'MEDLINE' ENTERED AT 02:49:18 ON 20 JUL 2008

FILE 'USPATFULL' ENTERED AT 02:49:18 ON 20 JUL 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 02:49:18 ON 20 JUL 2008
Copyright (c) 2008 The Thomson Corporation

=> (bubble or microbubble or AAL or AAP or (acoustically(W)active(3A)(liposome or
particle))) (S) (neutraliz? or break? or shrink? or dissol?)
(BUBBLE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s (bubble or microbubble or AAL or AAP or (acoustically(W)active(3A)(liposome or
particle))) (S) (neutraliz? or break? or shrink? or dissol?)
L1       14825 (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W) ACTIVE(
                3A)(LIPOSOME OR PARTICLE))) (S) (NEUTRALIZ? OR BREAK? OR SHRINK?
                 OR DISSOL?)

=> s L1 (P) (transducer or piezoelectric or ((ultrasonic or electro-optic)(4A)
detector))
L2         852 L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR ELECTRO-O
               PTIC)(4A) DETECTOR))

=> s L2 (P) (visible or viewable or view?)
L3          15 L2 (P) (VISIBLE OR VIEWABLE OR VIEW?)

=> s L2 (P) (vessel or artery or vein or ateriole or capillary)
L4          28 L2 (P) (VESSEL OR ARTERY OR VEIN OR ATERIOLE OR CAPILLARY)

=> s L3 and L4
L5           4 L3 AND L4

=> dup rem L5
PROCESSING COMPLETED FOR L5
L6           4 DUP REM L5 (0 DUPLICATES REMOVED)

=> s L6 NOT pd>20020709
L7           0 L6 NOT PD>20020709

=> s L3 NOT pd>20020709
L8           2 L3 NOT PD>20020709

=> dup rem L8
PROCESSING COMPLETED FOR L8
L9           2 DUP REM L8 (0 DUPLICATES REMOVED)
```

=> d L9 1-2 TI AB IBIB

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
TI Pilot testing of the C-Sparge process for PCE/TCE removal
AB Pilot tests have been conducted with a single C-Sparger (air stripping with microencapsulated ozone) control unit three in-well units with lower spargepoints at 25 ft below static water. The geol. substratum was a medium to coarse sand with static water at 15 ft. A set of seven monitoring wells, staggered in horizontal and vertical distance from the spargewell, served to det. the three-dimensional influence. A battery of tests was performed during early operation ranging from phys. monitoring (first two days) to chem. screening (field and lab. analyses), and emission control monitoring. Groundwater elevations, transient pressure changes, bubble arrival, wellhead gas changes, groundwater dissolved oxygen and redox potentials, halogenated volatile org. (HVOC) compds. (perchloroethylene/trichloroethylene PCE/TCE) and geochem. changes (anion/cation) in the groundwater were monitored. In addn. to std. sampling equipment, a downwell video camera allowed direct viewing of incoming bubbles entering well screens, a portable gas chromatograph analyzed by headspace water samples taken from screen regions with a double bailer, a pressure transducer measured dynamic pressure changes occurring during sparging and pumping operations, and an ozone meter recorded levels of gas skimmed off the water-table directly above the C-Sparger well. The pilot testing revealed an effective bubbling radius of about 40 ft, at equil. A broad recirculation zone extended to over 55 ft lateral and 40 ft deep below static water depth. Inorg. breakdown products from the decompn. of TCE and cis-1,2-dichloroethene, trans-1,2-dichloroethene and vinyl chloride were monitored in the bubble zone. No secondary org. byproducts were found during testing. Downwell video camera usage proved very useful in defining the expanding bubble zone region.
ACCESSION NUMBER: 1997:559682 CAPLUS
DOCUMENT NUMBER: 127:238686
ORIGINAL REFERENCE NO.: 127:46472h,46473a
TITLE: Pilot testing of the C-Sparge process for PCE/TCE removal
AUTHOR(S): Kerfoot, William B.
CORPORATE SOURCE: K-V Associates, Inc., USA
SOURCE: Proceedings of the National Outdoor Action Conference and Exposition, 11th, Las Vegas, Nev., Apr. 1-3, 1997 (1997), 135-148. Ground Water Publishing: Westerville, Ohio.
CODEN: 64XLAE
DOCUMENT TYPE: Conference
LANGUAGE: English

L9 ANSWER 2 OF 2 USPATFULL on STN
TI Sheet feeding device
AB A sheet feeding device for feeding a sheet by a vibration wave includes a pair of rotatable rollers each having a rotary shaft orthogonal to the direction of conveyance of the sheet and substantially parallel to the surface of the sheet. The sheet feeding device is designed such that the sheet is nipped by and between the pair of rollers with suitable pressure, thereby eliminating lateral shift and inclination for any extraneous force applied to the sheet.
ACCESSION NUMBER: 93:39220 USPATFULL
TITLE: Sheet feeding device
INVENTOR(S): Igaki, Masahiko, Tokyo, Japan
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Tokyo, Japan (non-U.S. corporation)

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                                NUMBER         KIND    DATE
                                -------------- ------ --------
PATENT INFORMATION:             US 5211390              19930518
APPLICATION INFO.:              US 1991-664750          19910305  (7)

                                       NUMBER         DATE
                                       -------------- --------
PRIORITY INFORMATION:           JP 1990-53134      19900305
DOCUMENT TYPE:                  Utility
FILE SEGMENT:                   Granted
PRIMARY EXAMINER:               Olszewski, Robert P.
ASSISTANT EXAMINER:             Reiss, Steven M.
LEGAL REPRESENTATIVE:           Fitzpatrick, Cella, Harper & Scinto
NUMBER OF CLAIMS:               18
EXEMPLARY CLAIM:                12
NUMBER OF DRAWINGS:             10 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT:                     356


=> d his

     (FILE 'HOME' ENTERED AT 02:47:06 ON 20 JUL 2008)

     FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 02:49:18 ON 20 JUL
     2008
L1        14825 S (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)ACTIV
L2          852 S L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR ELECTR
L3           15 S L2 (P) (VISIBLE OR VIEWABLE OR VIEW?)
L4           28 S L2 (P) (VESSEL OR ARTERY OR VEIN OR ATERIOLE OR CAPILLARY)
L5            4 S L3 AND L4
L6            4 DUP REM L5 (0 DUPLICATES REMOVED)
L7            0 S L6 NOT PD>20020709
L8            2 S L3 NOT PD>20020709
L9            2 DUP REM L8 (0 DUPLICATES REMOVED)

=> s L4 NOT pd>20020709
L10          15 L4 NOT PD>20020709

=> dup rem L10
PROCESSING COMPLETED FOR L10
L11           15 DUP REM L10 (0 DUPLICATES REMOVED)

=> s L11 and ultrasonic?
L12           4 L11 AND ULTRASONIC?

=> d L12 1-4 TI AB IBIB

L12  ANSWER 1 OF 4  USPATFULL on STN
TI     Method of removing thrombosis in fistulae
AB     Apparatus and methods are provided for utilizing a combination of
       ultrasonic energy and an echo contrast agent containing
       microbubbles, for substantially dissolving blood clots or other fistula
       obstructions. One embodiment of the present invention alternatively
       utilizes a selected dose of thrombolytic agent in combination with an
       echo contrast agent, for enhancing the thrombolytic action of a
       thrombolytic agent and removing a thrombosis from a fistula.
ACCESSION NUMBER:       2000:116952  USPATFULL
TITLE:                  Method of removing thrombosis in fistulae
INVENTOR(S):            Siegel, Robert J., Venice, CA, United States
                        Carter, Robert E., Arlington, MA, United States
PATENT ASSIGNEE(S):     Coraje, Inc., San Francisco, CA, United States (U.S.
```

corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6113570		20000905
APPLICATION INFO.:	US 1997-854911		19970513 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-441127, filed on 15 May 1995, now patented, Pat. No. US 5695460 which is a continuation-in-part of Ser. No. US 1994-303858, filed on 9 Sep 1994, now patented, Pat. No. US 5509896

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Coggins, Wynn Wood
ASSISTANT EXAMINER: Sadule, Jennifer R.
LEGAL REPRESENTATIVE: Hackler, Walter A.
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 404

L12 ANSWER 2 OF 4 USPATFULL on STN

TI Method of removing thrombosis in fistulae

AB Apparatus and methods are provided for utilizing a combination of ultrasonic energy and an echo contrast agent containing microbubbles, for substantially dissolving blood clots or other fistula obstructions. One embodiment of the present invention alternatively utilizes a selected dose of thrombolytic agent in combination with an echo contrast agent, for enhancing the thrombolytic action of a thrombolytic agent and removing a thrombosis from a fistula.

ACCESSION NUMBER: 2000:87406 USPATFULL
TITLE: Method of removing thrombosis in fistulae
INVENTOR(S): Siegel, Robert J., Venice, CA, United States
Carter, Robert E., Arlington, MA, United States
PATENT ASSIGNEE(S): Transon, LLC, San Francisco, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6086573		20000711
APPLICATION INFO.:	US 1998-168703		19981008 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-854911, filed on 13 May 1997 which is a continuation-in-part of Ser. No. US 1995-441127, filed on 15 May 1995, now patented, Pat. No. US 5695460 which is a continuation-in-part of Ser. No. US 1994-303858, filed on 9 Sep 1994, now patented, Pat. No. US 5509896

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Coggins, Wynn Wood
ASSISTANT EXAMINER: Sadula, Jennifer R.
LEGAL REPRESENTATIVE: Hackler, Walter A.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 395

L12 ANSWER 3 OF 4 USPATFULL on STN

TI Enhancement of ultrasound thrombolysis

AB Apparatus and methods are provided for utilizing a combination of ultrasonic energy and an echo contrast agent containing microbubbles, for substantially dissolving blood clots or other vascular

obstructions. One embodiment of the present invention utilizes a selected dose of thrombolytic agent in combination with an echo contrast agent, for enhancing the thrombolytic action of a thrombolytic agent and removing a thrombosis from a vascular system in less time than the time required by activity of the selected dose of thrombolytic agent without the ultrasonic radiation of the thrombosis.

ACCESSION NUMBER:	97:114637 USPATFULL
TITLE:	Enhancement of ultrasound thrombolysis
INVENTOR(S):	Siegel, Robert J., Venice, CA, United States Carter, Robert E., Arlington, MA, United States
PATENT ASSIGNEE(S):	Coraje, Inc., San Francisco, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5695460		19971209
APPLICATION INFO.:	US 1995-441127		19950515 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-303858, filed on 9 Sep 1994, now patented, Pat. No. US 5509896		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Bockelman, Mark		
ASSISTANT EXAMINER:	Smith, Chalin		
LEGAL REPRESENTATIVE:	Hackler, Walter A.		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	766		

L12 ANSWER 4 OF 4 USPATFULL on STN

TI CHROMATOGRAPHY VALVE

AB A sampling device for extracting a sample to be analyzed having a volume less than 0.01 microliter from a fluid stream by selectively introducing a slideably supported shaft into the fluid stream to expose a sample retaining capillary hole in the shaft to the fluid stream. An ultrasonic oscillator is positioned in the the fluid stream to add vibrational energy thereto to force a liquid sample into the capillary hole. The shaft is, subsequently, withdrawn from the fluid stream to deliver the fluid sample to a fluid analyzing means.

BACKGROUND OF THE INVENTION

Chromatography is a method of separating closely related chemicals by taking advantages of differences in molecular size. One way to separate a particular chemical from a mixture of various chemicals is to filter the mixture through several filter papers of various pore sizes, running the mixture through the coarses filter first, then through successively finer filters. The chemical of interest will be deposited in relatively pure form on one particular filter. The method just described is not suitable for testing several successive samples for content of the various chemicals since the filters must be replaced or cleaned carefully after each sample. Thus, that technique is limited to laboratory use.

Another way to separate particles by physical size is to run a given mixture, in solution form, through a porous filter which will pass all chemicals included in the mixture. The large molecules will pass through the filter at a slower rate than the smaller molecules. Accordingly, by making the filter very thick, the time required for molecules to pass through the filter can be greatly increased. This also increases the differences between the characteristic times for the different sizes of

molecules. For a given filter configuration, a chemical can now be identified by the characteristic time required to pass through the filter. This technique is applicable to industrial use where samples are taken at regular intervals by automated devices. Regular samples can be separated through this type of filter without cleaning. This type of filter generally takes the form of a piece of tubing packed with some inert material, such as diatomaceous earth, and wound into a coil called a column. It is a function of the automated analyzer to separate a mixture into its various constituent and identify them as to name and relative amounts. Since the column separates the various constituents, it remains for the analyzer to identify them. Accordingly, some property of the materials is checked, e.g., thermal conductivity. This is measured as the constituents come out of the column and is compared against known standards.

In a typical chromatographic analyzer, an inert carrier gas is continually pumped through at a constant flow rate. This inert gas, e.g., Co2, is used for two purposes. First, it dissolves the samples and carries them to and through the column. Second, it acts as a reference material whose thermal conductivity is continually monitored. As the carrier gas passes through a first chamber, which is kept at an elevated temperatures, it cools a thermister within the chamber and increases the electrical resistance of the thermister. For a given flow rate of the carrier gas, equilibrium of the thermister resistance will quickly be established. The carrier gas next passes through a column and into a second chamber, identical to the first one. Again a thermistor is cooled, and its electrical resistance increases to an equilibrium value. These two thermistors are wired into a bridge circuit, and the circuit is balanced. The output of the bridge is zero at equilibrium and, thus, indicates the absence of foreign matter in the carrier gas. However, when a sample to be analyzed is injected into the carrier gas stream between the first chamber and the column the effects will be seen in the form of an unbalance signal from the bridge circuit. This output signal may be recorded on a strip chart recorder. Thus, the chemical can be identified by the characteristic time of column passage and the relative amount thereof mixed with the carrier gas by the relative areas under the recorded waveform. The recorded waveform appears when an area of high concentration of a particular substance passes the second thermistor and upsets the balance of the bridge. Generally, instead of using a recorder as an output, a digital computer may be employed to reduce the data quickly and give more accurate results.

There are, of course, obvious limitations to this approach to chromatographic analysis. Primary amoung them is the fact that no universal data is available to determine characteristic column passage time of particular chemicals. The times vary with the geometry of a column, the filter material, the temperature, the gas flow rate and other minor effects. Therefore, the analyzer device must be calibrated for each constituent that would possibly be tested, and the filter material must be selected accordingly. Another limitation, not so obvious at first, is the size of the sample that is taken. At present levels of analyzer technology, liquid samples can be taken down to about 1 microliter. Samples of this size require several minutes to separate in a column due to necessarily long column length. As the sample size is reduced, column length can, also, be reduced, and, thus, the time required to analyze the sample will be reduced. A reduction in liquid sample size from 1 microliter to 0.01 microliter would reduce the necessary time to analyze the sample from minutes to seconds. Accordingly, it would be desirable to produce a sampling device capable of extracting the samples from a sample stream in quantities that are no larger than 0.01 microliters. The advantage for the development of

faster analyzers is self-evident in view of prior use in industrial process control. For example, a large chemical plant mixing several chemicals performs on either a continuous or on a batch basis. A central control computer collects data from various instruments such as pressure guages, flow meters, temperature sensors, and chromographic analyzers. The computer maintains these devices at preset levels by making continuous corrections at various valves, heaters, etc. The slowest instrument in the prior art systems is the chromographic analyzer. Thus, if a composition error occurs, it usually takes several minutes to find out about it, and, thus, a large amount of the end product of the chemical plant could be ruined during the occurrence of the error period. Thus, for a truly effective control system, the analyzer should function in approximately the same time as the other process sensing instruments.

Accordingly, an object of the present invention is to provide an improved sampling device for chromographic analyzers.

Another object of the present invention is to provide an improved sampling device capable of collecting samples having a volume less than 0.01 microliter.

A further object of the present invention is to provide an improved sampling device for extracting a sample having a volume less than 0.01 microliter from a sample stream and supplying the sample to a chromographic analyzers.

SUMMARY OF THE INVENTION

A sampling device including a sample storage means slideably supported in fluid-tight means for introducing sample storage means into a fluid stream to be sampled. The sample storage means is provided with a sample retaining volume of less than 0.01 microliter which is exposed to the fluid stream when the storage means is introduced therein. An ultrasonic oscillator is arranged to add ultrasonic mechanical energy to the fluid stream to force a fluid into the sample retaining volume. The sample storage means is, subsequently, withdrawn from the sample stream and the captured sample is extracted from sample retaining volume for delivery to an analyzer.

ACCESSION NUMBER:	73:36185 USPATFULL		
TITLE:	CHROMATOGRAPHY VALVE		
INVENTOR(S):	Morgan, David A., North Wales, PA, United States		
PATENT ASSIGNEE(S):	Honeywell Inc., Minneapolis, MN, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3751992		19730814
APPLICATION INFO.:	US 1971-160463		19710707 (5)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Queisser, Richard C.		
ASSISTANT EXAMINER:	Yasich, Daniel M.		
LEGAL REPRESENTATIVE:	Arthur H. Swanson et al.		
NUMBER OF CLAIMS:	4		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	351		

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     (FILE 'HOME' ENTERED AT 02:47:06 ON 20 JUL 2008)

     FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 02:49:18 ON 20 JUL
     2008
L1         14825 S (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)ACTIV
L2           852 S L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR ELECTR
L3            15 S L2 (P) (VISIBLE OR VIEWABLE OR VIEW?)
L4            28 S L2 (P) (VESSEL OR ARTERY OR VEIN OR ATERIOLE OR CAPILLARY)
L5             4 S L3 AND L4
L6             4 DUP REM L5 (0 DUPLICATES REMOVED)
L7             0 S L6 NOT PD>20020709
L8             2 S L3 NOT PD>20020709
L9             2 DUP REM L8 (0 DUPLICATES REMOVED)
L10           15 S L4 NOT PD>20020709
L11           15 DUP REM L10 (0 DUPLICATES REMOVED)
L12            4 S L11 AND ULTRASONIC?

=> s L2 and (waveform (w) (continuous or pulsat?))
L13            0 L2 AND (WAVEFORM (W) (CONTINUOUS OR PULSAT?))

=> s L2 and (waveform (S) (continuous or pulsat?))
L14           11 L2 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))

=> dup rem L14
PROCESSING COMPLETED FOR L14
L15           11 DUP REM L14 (0 DUPLICATES REMOVED)

=> s L15 NOT pd>20020709
L16            1 L15 NOT PD>20020709

=> d L16 TI AB IBIB

L16  ANSWER 1 OF 1  USPATFULL on STN
TI     Single transducer ACIM method and apparatus
AB     Acoustic coaxing induced microcavitation (ACIM) for controlling the
       onset, evolution, and/or intensity of microcavitation events in a liquid
       or fluid medium to perform nanometer or micrometer particle detection in
       ultrapure liquids, sub-micron particle removal for precision cleaning of
       semiconductor wafers, deinking of paper or pulp, thin film removal from
       substrates, depainting substrates or panels, destructive and
       nondestructive measuring and testing of thin films, sculpting or erosion
       of surfaces, or control or acceleration of liquid-based chemical
       reactions. Instead of using a pair of sinusoidally excited, acoustically
       focused transducers operating at different fundamental resonance
       frequencies, ACIM events are instead generated using a single transducer
       and a waveform generator, e.g., square wave tone bursts, to excite the
       transducer with acoustic pulse trains controlled in frequency, burst
       repetition rate, duty-cycle and/or amplitude which, in turn, controls
       ACIM events in a more practical way for industrial, scientific and
       medical applications. The waveform generator produces those Fourier
       components which, when applied to the single transducer, achieve the
       same or similar ACIM acoustic field effect at a coaxing site as a pair
       of focused coaxing high and low frequency transducers. Multiple
       single-transducer acoustic coaxing systems and methods may be deployed
       in a common environment to achieve a desired application.
ACCESSION NUMBER:         2002:122095  USPATFULL
TITLE:                    Single transducer ACIM method and apparatus
INVENTOR(S):              Madanshetty, Sameer I., Manhattan, KS, United States
PATENT ASSIGNEE(S):       Uncopiers, Inc., Manhattan, KS, United States (U.S.
                          corporation)
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                              NUMBER         KIND    DATE
                              -------------- ------ --------
PATENT INFORMATION:           US 6395096      B1    20020528
APPLICATION INFO.:            US 2000-488574         20000121  (9)

                              NUMBER         DATE
                              -------------- --------
PRIORITY INFORMATION:         US 1999-116651P    19990121 (60)
DOCUMENT TYPE:                Utility
FILE SEGMENT:                 GRANTED
PRIMARY EXAMINER:             Stinson, Frankie L.
ASSISTANT EXAMINER:           Kornakov, M.
LEGAL REPRESENTATIVE:         McIntyre Harbin & King
NUMBER OF CLAIMS:             39
EXEMPLARY CLAIM:              1
NUMBER OF DRAWINGS:           7 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT:                   1124


=> d his

     (FILE 'HOME' ENTERED AT 02:47:06 ON 20 JUL 2008)

     FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 02:49:18 ON 20 JUL
     2008
L1         14825 S (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)ACTIV
L2           852 S L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR ELECTR
L3            15 S L2 (P) (VISIBLE OR VIEWABLE OR VIEW?)
L4            28 S L2 (P) (VESSEL OR ARTERY OR VEIN OR ATERIOLE OR CAPILLARY)
L5             4 S L3 AND L4
L6             4 DUP REM L5 (0 DUPLICATES REMOVED)
L7             0 S L6 NOT PD>20020709
L8             2 S L3 NOT PD>20020709
L9             2 DUP REM L8 (0 DUPLICATES REMOVED)
L10           15 S L4 NOT PD>20020709
L11           15 DUP REM L10 (0 DUPLICATES REMOVED)
L12            4 S L11 AND ULTRASONIC?
L13            0 S L2 AND (WAVEFORM (W) (CONTINUOUS OR PULSAT?))
L14           11 S L2 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))
L15           11 DUP REM L14 (0 DUPLICATES REMOVED)
L16            1 S L15 NOT PD>20020709

=> d que L1
L1         14825 SEA (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)
                 ACTIVE(3A)(LIPOSOME OR PARTICLE))) (S) (NEUTRALIZ? OR BREAK?
                 OR SHRINK? OR DISSOL?)


=> s L1 and transducer
L17         1654 L1 AND TRANSDUCER

=> s L17 and (waveform (S) (continuous or pulsat?))
L18           23 L17 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))

=> s L18 NOT pd>20020709
L19            3 L18 NOT PD>20020709

=> dup rem L19
PROCESSING COMPLETED FOR L19
L20            3 DUP REM L19 (0 DUPLICATES REMOVED)
```

=> d L20 1-3 TI AB IBIB

L20 ANSWER 1 OF 3 USPATFULL on STN
TI Single transducer ACIM method and apparatus
AB Acoustic coaxing induced microcavitation (ACIM) for controlling the onset, evolution, and/or intensity of microcavitation events in a liquid or fluid medium to perform nanometer or micrometer particle detection in ultrapure liquids, sub-micron particle removal for precision cleaning of semiconductor wafers, deinking of paper or pulp, thin film removal from substrates, depainting substrates or panels, destructive and nondestructive measuring and testing of thin films, sculpting or erosion of surfaces, or control or acceleration of liquid-based chemical reactions. Instead of using a pair of sinusoidally excited, acoustically focused transducers operating at different fundamental resonance frequencies, ACIM events are instead generated using a single transducer and a waveform generator, e.g., square wave tone bursts, to excite the transducer with acoustic pulse trains controlled in frequency, burst repetition rate, duty-cycle and/or amplitude which, in turn, controls ACIM events in a more practical way for industrial, scientific and medical applications. The waveform generator produces those Fourier components which, when applied to the single transducer, achieve the same or similar ACIM acoustic field effect at a coaxing site as a pair of focused coaxing high and low frequency transducers. Multiple single-transducer acoustic coaxing systems and methods may be deployed in a common environment to achieve a desired application.

ACCESSION NUMBER:	2002:122095 USPATFULL		
TITLE:	Single transducer ACIM method and apparatus		
INVENTOR(S):	Madanshetty, Sameer I., Manhattan, KS, United States		
PATENT ASSIGNEE(S):	Uncopiers, Inc., Manhattan, KS, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6395096	B1	20020528
APPLICATION INFO.:	US 2000-488574		20000121 (9)
	NUMBER		DATE
PRIORITY INFORMATION:	US 1999-116651P		19990121 (60)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Stinson, Frankie L.		
ASSISTANT EXAMINER:	Kornakov, M.		
LEGAL REPRESENTATIVE:	McIntyre Harbin & King		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1124		

L20 ANSWER 2 OF 3 USPATFULL on STN
TI Torch mounted gas scavaging system for manual and robotic welding and cutting torches
AB Disclosed is an improved welding system incorporating a novel torch mounted gas scavenging system which removes and filters contaminant gases from the workplace and incorporates an enclosure which creates high turnover rates of shielding gases at the weld pool thereby preventing contaminant gas induced defects, and which insulates the heat affected area thereby prolonging the cooling process of the weld pool, effectively reducing porosity and other related defects, and which provides the capability of accurately monitoring and displaying specific

measurements of an ongoing welding operation such as humidity, ambient frequencies, internal temperature and pressure in the enclosure, and on line acoustic emissions sensors which indicate the presence or absence of defects as the weld is being made. The system also has an auxiliary gas source which is independently controlled from the primary shielding gas flow, which allows the introduction of auxiliary gas flows into the enclosure without disturbing the primary gas flow pattern.

ACCESSION NUMBER: 1998:115374 USPATFULL
TITLE: Torch mounted gas scavaging system for manual and robotic welding and cutting torches
INVENTOR(S): Geiger, Michael B., 1403 76th St., Houston, TX, United States 77012

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5811055		19980922
APPLICATION INFO.:	US 1996-601214		19960206 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kastler, Scott
LEGAL REPRESENTATIVE: Roddy, Kenneth A.
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 39 Drawing Figure(s); 25 Drawing Page(s)
LINE COUNT: 2646

L20 ANSWER 3 OF 3 USPATFULL on STN
TI Pressure measuring system with ultrasonic wave
AB A system for measuring from the outside of a living body the pressure within the heart or the pressure of any portion which does not allow a measurement by the direct insertion of a pressure measuring sensor.

This system provides a method of measuring the pressure of the object by generating fine bubbles through cavitation, applying a low frequency ultrasonic wave to the medium, and then detecting the bubbles which are generated with a system for detecting the high or low frequency harmonics due to the bubbles or a higher frequency ultrasonic wave applied to the medium.

ACCESSION NUMBER: 84:64293 USPATFULL
TITLE: Pressure measuring system with ultrasonic wave
INVENTOR(S): Miwa, Hirohide, Kawasaki, Japan
PATENT ASSIGNEE(S): Fujitsu Limited, Kawasaki, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4483345		19841120
APPLICATION INFO.:	US 1982-405143		19820804 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1981-124588	19810808

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kreitman, Stephen A.
ASSISTANT EXAMINER: Williams, Hezron
LEGAL REPRESENTATIVE: Staas & Halsey
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 840

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=> d his

     (FILE 'HOME' ENTERED AT 02:47:06 ON 20 JUL 2008)

     FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 02:49:18 ON 20 JUL
     2008
L1         14825 S (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)ACTIV
L2           852 S L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR ELECTR
L3            15 S L2 (P) (VISIBLE OR VIEWABLE OR VIEW?)
L4            28 S L2 (P) (VESSEL OR ARTERY OR VEIN OR ATERIOLE OR CAPILLARY)
L5             4 S L3 AND L4
L6             4 DUP REM L5 (0 DUPLICATES REMOVED)
L7             0 S L6 NOT PD>20020709
L8             2 S L3 NOT PD>20020709
L9             2 DUP REM L8 (0 DUPLICATES REMOVED)
L10           15 S L4 NOT PD>20020709
L11           15 DUP REM L10 (0 DUPLICATES REMOVED)
L12            4 S L11 AND ULTRASONIC?
L13            0 S L2 AND (WAVEFORM (W) (CONTINUOUS OR PULSAT?))
L14           11 S L2 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))
L15           11 DUP REM L14 (0 DUPLICATES REMOVED)
L16            1 S L15 NOT PD>20020709
L17         1654 S L1 AND TRANSDUCER
L18           23 S L17 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))
L19            3 S L18 NOT PD>20020709
L20            3 DUP REM L19 (0 DUPLICATES REMOVED)

=> s L1 (P) (pore or membrane)
L21          831 L1 (P) (PORE OR MEMBRANE)

=> s L21 and (vessel or arter? or capillar? or aorta or vein)
L22          397 L21 AND (VESSEL OR ARTER? OR CAPILLAR? OR AORTA OR VEIN)

=> s L22 and transducer
L23           99 L22 AND TRANSDUCER

=> s L23 and (detector or piezoelectric or (electro(3A)optic))
L24           30 L23 AND (DETECTOR OR PIEZOELECTRIC OR (ELECTRO(3A) OPTIC))

=> s L23 and cells
L25           42 L23 AND CELLS

=> s L24 and cells
L26           14 L24 AND CELLS

=> s L26 and (cell (S) honecomb)
L27            0 L26 AND (CELL (S) HONECOMB)

=> s L26 and (honeycomb or (honey (3A) comb))
L28            9 L26 AND (HONEYCOMB OR (HONEY (3A) COMB))

=> dup rem L28
PROCESSING COMPLETED FOR L28
L29            9 DUP REM L28 (0 DUPLICATES REMOVED)

=> s L29 NOT pd>20020709
L30            2 L29 NOT PD>20020709

=> d L30 1-2 TI AB IBIB
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L30 ANSWER 1 OF 2 USPATFULL on STN
TI Authentication system for camera print rolls
AB A print roll for location within a portable imaging device. The print roll includes a medium source for providing a print medium, an ink source for providing sufficient ink for printing on said medium, monitoring means to monitor an amount of said medium which has been printed, and an integrated circuit including authorisation means located within the integrated circuit. The portable imaging device utilises the authorisation means to determine if the print roll is of a predetermined standard.

ACCESSION NUMBER:	2002:64500 USPATFULL			
TITLE:	Authentication system for camera print rolls			
INVENTOR(S):	Silverbrook, Kia, Sydney, AUSTRALIA			
PATENT ASSIGNEE(S):	Silverbrook Research Pty Ltd, Balmain, AUSTRALIA (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6362869	B1	20020326	
APPLICATION INFO.:	US 1998-113069		19980710	(9)
	NUMBER		DATE	
PRIORITY INFORMATION:	AU 1997-7989		19970715	
	AU 1997-7991		19970715	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	GRANTED			
PRIMARY EXAMINER:	Adams, Russell			
ASSISTANT EXAMINER:	Kim, Peter B.			
NUMBER OF CLAIMS:	4			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	232 Drawing Figure(s); 140 Drawing Page(s)			
LINE COUNT:	15248			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 2 OF 2 USPATFULL on STN
TI Ink and media cartridge with axial ink chambers
AB A detachable ink supply unit is disclosed for interconnection to a print head for printing images. The supply unit including a print roll of print media onto which the print head prints images, and an ink cartridge located internally of the print roll and containing a plurality of ink supply reservoirs along an internal axis of the print roll. Each reservoir including an air hole at one end and a pierceable seal at another end for the insertion of an ink channel element for fluid communication of the reservoir with the print head. Further, the air hole can be interconnected to a hydrophobic channel having a winding channel path so as to minimize the possibilities of ink flow through the channel. The unit can further include a series of decurling rollers which pinch the print media and bend the print media in an opposite direction to the direction of bend of the print media on the print roll. The ink supply unit can include a cover portion having a slot defined therein for passage of the print media and the surface surrounding the slot can include a raised portion for engaging a corresponding portion of the print head unit for the accurate alignment of the supply unit relative to the print head.

ACCESSION NUMBER:	2001:54747 USPATFULL
TITLE:	Ink and media cartridge with axial ink chambers
INVENTOR(S):	Silverbrook, Kia, Sydney, Australia
PATENT ASSIGNEE(S):	Silverbrook Research Pty. Ltd., Balmain, Australia (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6217165	B1	20010417
APPLICATION INFO.:	US 1998-112783		19980710 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1997-7991	19970715
	AU 1998-1397	19980119

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Le, N.
ASSISTANT EXAMINER: Nguyen, Judy
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 232 Drawing Figure(s); 140 Drawing Page(s)
LINE COUNT: 16923

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(FILE 'HOME' ENTERED AT 02:47:06 ON 20 JUL 2008)

FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 02:49:18 ON 20 JUL 2008

L1 14825 S (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)ACTIV
L2 852 S L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR ELECTR
L3 15 S L2 (P) (VISIBLE OR VIEWABLE OR VIEW?)
L4 28 S L2 (P) (VESSEL OR ARTERY OR VEIN OR ATERIOLE OR CAPILLARY)
L5 4 S L3 AND L4
L6 4 DUP REM L5 (0 DUPLICATES REMOVED)
L7 0 S L6 NOT PD>20020709
L8 2 S L3 NOT PD>20020709
L9 2 DUP REM L8 (0 DUPLICATES REMOVED)
L10 15 S L4 NOT PD>20020709
L11 15 DUP REM L10 (0 DUPLICATES REMOVED)
L12 4 S L11 AND ULTRASONIC?
L13 0 S L2 AND (WAVEFORM (W) (CONTINUOUS OR PULSAT?))
L14 11 S L2 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))
L15 11 DUP REM L14 (0 DUPLICATES REMOVED)
L16 1 S L15 NOT PD>20020709
L17 1654 S L1 AND TRANSDUCER
L18 23 S L17 AND (WAVEFORM (S) (CONTINUOUS OR PULSAT?))
L19 3 S L18 NOT PD>20020709
L20 3 DUP REM L19 (0 DUPLICATES REMOVED)
L21 831 S L1 (P) (PORE OR MEMBRANE)
L22 397 S L21 AND (VESSEL OR ARTER? OR CAPILLAR? OR AORTA OR VEIN)
L23 99 S L22 AND TRANSDUCER
L24 30 S L23 AND (DETECTOR OR PIEZOELECTRIC OR (ELECTRO(3A)OPTIC))
L25 42 S L23 AND CELLS
L26 14 S L24 AND CELLS
L27 0 S L26 AND (CELL (S) HONECOMB)
L28 9 S L26 AND (HONEYCOMB OR (HONEY (3A) COMB))
L29 9 DUP REM L28 (0 DUPLICATES REMOVED)
L30 2 S L29 NOT PD>20020709

=> d que L1
L1 14825 SEA (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W) ACTIVE(3A)(LIPOSOME OR PARTICLE))) (S) (NEUTRALIZ? OR BREAK? OR SHRINK? OR DISSOL?)

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=> d que L2
L1         14825 SEA (BUBBLE OR MICROBUBBLE OR AAL OR AAP OR (ACOUSTICALLY(W)
                 ACTIVE(3A)(LIPOSOME OR PARTICLE))) (S) (NEUTRALIZ? OR BREAK?
                 OR SHRINK? OR DISSOL?)
L2           852 SEA L1 (P) (TRANSDUCER OR PIEZOELECTRIC OR ((ULTRASONIC OR
                 ELECTRO-OPTIC)(4A) DETECTOR))
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